

# Work Order ID 69071

Thursday, April 28, 2011 8:33:23 AM



Page 1

Item ID: D212-664-201

Accept



Setup Start



Revision ID:

Stop



Item Name: Crosstube Aft

Start Date: 4/28/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/6/2011 Req'd Qty: 1.00



Customer:

Reference: ECN11-549 / DEO - Rework

Approvals: Process Plan: *W*

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D212-664-241

Rev D

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels as per PPP D212-664-201

CHG003

CHG004

5/10/10

*Handwritten:* 11-5-3

230

0.00



Crosstubes

Crosstubes

Memo

0.00

Crosstubes

PULL FROM STOCK (OFFSHORE)  
1 X D212-664-201 B38844

-GRIND OFF PAINT ON INSIDE OF TUBE 2" WIDE, 2" AWAY FROM  
CUFFS PER DEO/ECN11-549.  
-RE-ALODINE GROUND AREA  
-PRIME ARE USING TEMPO YELLOW EPOXY PRIMER B  
-SCUFF AND CLEAR COAT USING IMRON 500S

*Handwritten:* 115620

*Handwritten:* 11-05-02

<b>DART</b> DART Aerospace Ltd. 1270 ABERDEEN ST. HAWKESBURY ONT CANADA K6A 1K7				TO APPROVAL #09-89 TEL: 1-613-632-5200	
P/N	D212-664-201	CHG	CHG003		
DESC	Crosstube Aft High	STC	SH01-9		
LOT	B38844	STC	SR01298NY		
MODEL	Bell 204/205/210/212/214	STC			
MADE IN CANADA					

# Work Order ID 69071

Thursday, April 28, 2011 8:33:23 AM



Page 2

Item ID: D212-664-201

Accept



Setup Start



Revision ID:

Stop



Item Name: Crosstube Aft

Start Date: 4/28/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/6/2011 Req'd Qty: 1.00



Customer:

Reference: ECN11-549 / DEO

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									
250	Pick Kit	0.00							
Packaging	Memo	0.00							
Packaging	ENSURE ORIGINAL KIT RETURNS WITH TUBE								
260	QC4- 100% Inspect kits for completeness	0.00							
QC	Memo	0.00							
Quality Control									

11 05 03 (i)

4/30/11

FD

# Work Order ID 69071

Thursday, April 28, 2011 8:33:24 AM

Page 3

Item ID: D212-664-201

Accept

Setup Start

Revision ID:

Stop

Item Name: Crosstube Aft

Start Date: 4/28/2011 Start Qty: 1.00

Cust Item ID:

Required Date: 5/6/2011 Req'd Qty: 1.00

Customer:



Reference: ECN11-549 / DEO

Run Start

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270  Packaging	Packaging	0.00							
Packaging	<b>Memo</b> RE-PACKAGE PER PPP USING NEW B/N NEW LABELS REQ'D Identify and pack for shipping as per PPP D212-664-201	0.00							
280  QC	QC21- Final Inspection - Work Order Release	0.00							
Quality Control	<b>Memo</b>	0.00							

*Leug*

11/5/35

11/5/35

MP  
11-05-03

# Picklist Print

Thursday, April 28, 2011 8:33:34 AM

Page 1

Work Order ID: 69071

Parent Item: D212-664-201

Parent Item Name: Crosstube Aft



Start Date: 4/28/2011

Required Date: 5/6/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:E 04.02.16 Reformat K/DS  
IPP Rev:F 06-03-29 Remove Comments on Pick List JLM  
IPP Rev:G 07-04-30 As per Rev C JLM  
IPP Rev:H 08-05-22 up date Qty of rubber cushion DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D212-664-201		Manufactured	No				Each	0.0000		1			
Crosstube Aft													

338844



21

11-05-02

## List Lots

Page 1 of 1

Thursday, April 28, 2011 7:25:20 AM

Criteria : Item ID: d212-664-201 All Locations All Warehouses All Quantity

Item ID Item Name	Warehouse ID Location ID	Lot Number	Last Trans Date	Lot Qty	Shelf Life Dt	Lot Code	Type Code	Comments
D212-664-201 Crosstube Air	HONG KONG FG	39659	11/29/2010	1.0000		QC21	CHG003	Paperwork not updated in HK
	OFFSHORE FG	38844	11/29/2010	1.0000		QC21	CHG003	
	OFFSHORE FG	60449	11/29/2010	1.0000		QC21	CHG003	
Total:				3.0000				

DRAWING NO. D212-664-241	TITLE CROSSTUBE ASSY (205/212 HI AFT)	REV. D	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D212-664-241-D-1	SHEET NO. SHEET 1 OF 2	SCALE NTS
DRAWN	CHECKED	MFG. APPR.	APPROVED	DE APPR.			
DATE 11.04.07	DATE 11.04.11	DATE 11.04.12	DATE 11/04/12	DATE 11.04.12			

**PURPOSE:**

ADD AN INSPECTION WINDOW TO UNDERSIDE OF CROSSTUBE.

**CHANGE:**

NOTES 2 OF SHEET 1 IS AMENDED AS FOLLOWS:

**IS:**

- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
MASK UNDERSIDE OF CROSSTUBE AS SHOWN (HATCHED AREA) AND  
PAINT OUTSIDE PER DART QSI 005 4.2  
REMOVE MASKING AND APPLY CLEAR COAT

**WAS:**

- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2

RELEASED  
2011-04-18

69071

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D212-664 Rev. F AND  
INSTRUCTIONS FOR CONTINUOUS AIRWORTHINESS ICA-D212-664 Rev. 6

REF. CANADIAN STC: SH01-9  
REF. FAA STC: SR01298NY  
REF. EASA STC: EASA.IM.R.S.01304

For D212-664-101/-201 High Fwd/Aft Crosstube at CHG 004 or later, and D412-664-203 Aft Crosstubes at CHG 007 or later, an inspection window has been added on the underside of the crosstube to facilitate inspection.

**IMPORTANT NOTE:** If a D212-664-101/-201 or D412-664-203 Crosstube has been stripped of paint, it should now be refinished as follows:

- 1) Apply chemical conversion film material (Alodine 1200 or 1201) per MIL-C-5541 and one coat of MIL-P-85582 or MIL-P-23377 primer.
- 2) Mask underside of crosstube as per hatched area shown in Figures 1 and 2 as applicable.
- 3) Paint outside surfaces of crosstube by applying 2-3 coats of MIL-C-85285 polyurethane paint to match original finish.
- 4) Apply clear coat on inspection window (hatched area).

Additionally, on D412-664-203 Aft Crosstubes at CHG 007 or later, the D2856-600-1009 Abrasion Strips have been removed, and D3189-1 Chafing Shields have been bonded onto the crosstubes using Proseal 890. For D412-664-203 Aft Crosstubes at CHG 007 or later, amend Parts List of IIN-D212-664 Section 5.1 and ICA-D212-664 Section 32.11.1 as follows:

Remove:

Item	QTY	Part Number	Description
31	2	* D2856-600-1009	ABRASION STRIP

If a D3189-1 Chafing Shield is being re-installed on the crosstube, it should now be re-installed as follows:

- 1) Follow section 32.1 of ICA-D212-664 for the removal of the crosstubes from the helicopter.
- 2) Remove the qty(2) MS21920-28 Clamps from the crosstube that fasten the D3189-1 Chafing Shields to the crosstube (ref. section 32.5 of ICA-D212-664).
- 3) Remove the D2856-600-1009 Abrasion Strip from the crosstube per section 32.7 of ICA-D212-664.
- 4) Inspect the crosstube surface where the chafing shields and abrasion strips were installed for corrosion and mechanical damage per items 5.3.1 and 5.3.2 of the 300 hour inspection. Repair damage within acceptable limits per item 5.3.3 of the 300 hour inspection. Touch up finish per item 5.3.9 of 300 hour inspection. If crosstube was stripped of paint, refer to instructions below for suitable refinishing of crosstube.
- 5) Apply a 0.02" to 0.04" (0.5-1.0 mm) thick layer of Proseal 890 on the concave surface of D3189-1 Chafing Shields and let cure per manufacturer's instructions.
- 6) Once the Proseal on the D3189-1 Chafing Shields is cured, apply a thin layer of Proseal 890 on the crosstube to cover the area where the Chafing Shields will be installed.
- 7) Locate the D3189-1 Chafing Shield as shown in Figure 3. Ensure that the overlapping edge of the chafing shield is located at approximately 60° from bottom vertical to prevent deterioration of the rubber bumpers. Be sure to eliminate any air gaps.
- 8) Position and tighten the clamps to a torque of 80-100 in-lb (9.0-11.3 N-m).
- 9) Allow the assembly to cure for 12 hours.
- 10) Re-install the D412-664-203 crosstube per section 32.2 of ICA-D212-664.

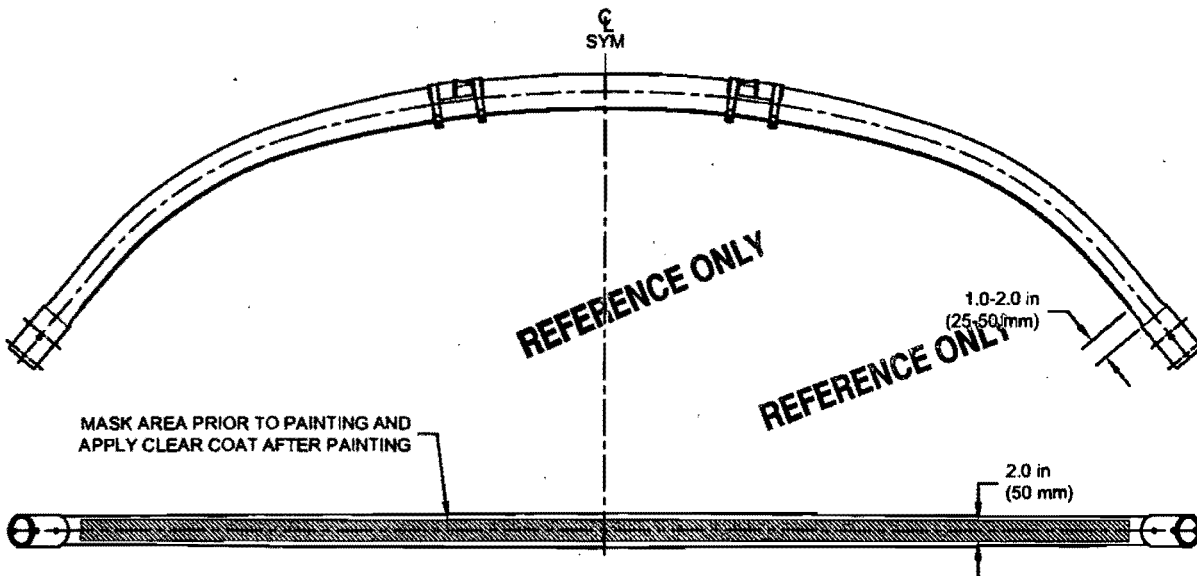
CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED

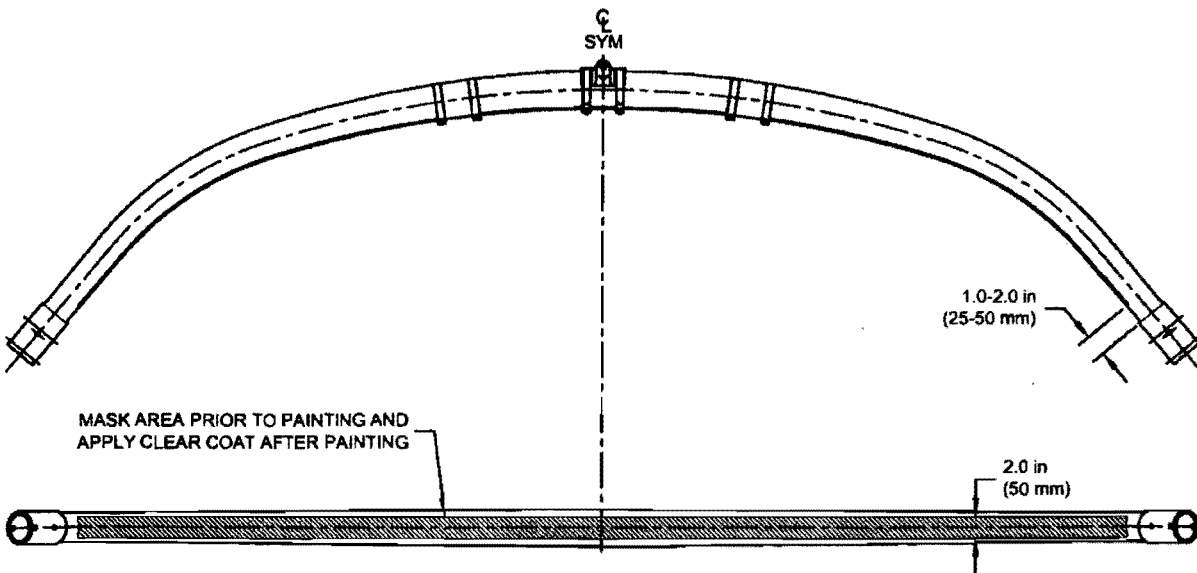
BY:   
D. SHEPHERD (DE # 02)

DATE: 11.04.01  
CERT. NO.: SH01-9  
ISSUE NO.: 3

A	NEW ISSUE	MB	11.04.01
REV.	DESCRIPTION	BY	DATE
DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		DSI 9549	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.		D212-664 FINISHING CHANGE	NTS
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**FIGURE 1 - INSPECTION WINDOW ON  
D212-664-101/-201 CROSSTUBES**



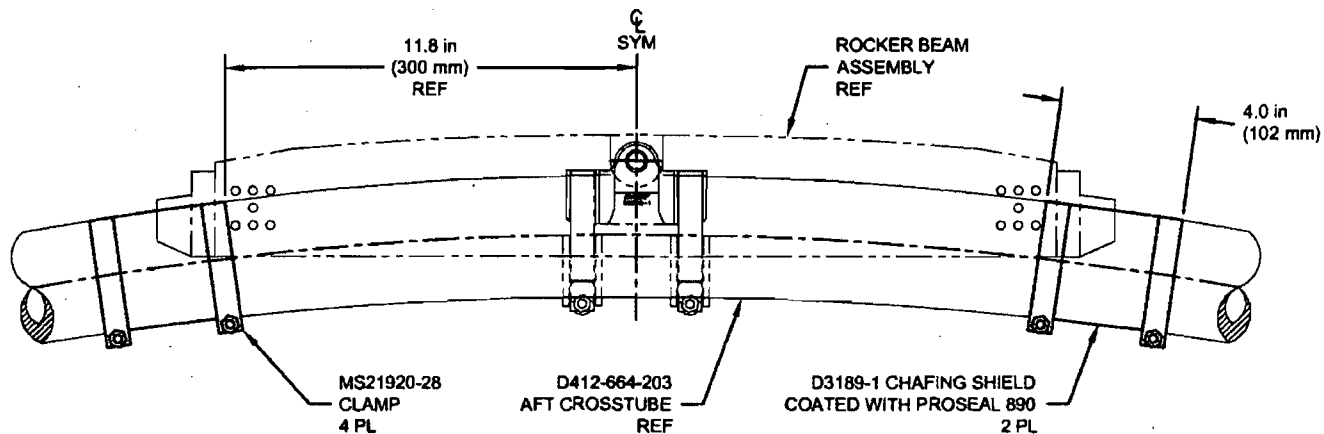
**FIGURE 2 - INSPECTION WINDOW ON  
D412-664-203 CROSSTUBES**

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DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

**APPROVED**  
BY: *[Signature]*  
D. SHEPHERD (DE # 02)  
DATE: 11.04.01  
CERT. NO.: SH01-9  
ISSUE NO.: 3

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MFG. APPR.		DSI 9549	SHEET 2 OF 3
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**FIGURE 3 - CHAFING SHIELD  
INSTALLATION ON D412-664-203**

REFERENCE ONLY

REFERENCE ONLY

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED  
BY: *[Signature]*  
D. SHEPHERD (DE # 02)

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MFG. APPR.		DSI 9549	SHEET 3 OF 3
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